CLAIMS

1. A fluid injector with a channel terminating in one or more orifices and being, in use, operatively connected to a fluid supply means so that fluid may be supplied to the injector in order to pass through said channel to exit by one or more of said orifices into a medium; wherein the injector comprises a sensor in contact with the medium into which fluid is injected; and processing means operating in conjunction with the sensor to derive condition values and orchestrate appropriate control of the operation of the injector and/or any other relevant device.

2. A fluid injector according to Claim 1, wherein the injector is combined with spark-electrodes so as to form a combined sparkplug and injector unit and, in use, the medium is constituted by the contents of a combustion chamber.

3. A fluid injector according to Claim 2, wherein part of the sensor is an ion sensing electrode for sensing electrical resistance across the gap between the ion sensing electrode and a low potential electrode.

4. A fluid injector as herein before described and/or illustrated in any appropriate combination of the accompanying text and/or figures.

5. An engine management system incorporating one or more fluid injectors in accordance with any preceding claim.

6. An engine management system, comprising an engine control unit (ECU) operatively connected to one or more sensors, wherein at least one of said sensors is combined with a fluid injector and is in contact with the medium into which fluid is injected so as to derive condition values and orchestrate appropriate engine control.

7. An engine management system according to Claim 6, operating in conjunction with a single sensor.

8. An engine management system according to either Claim 6 or Claim 7 wherein the system comprises no crankshaft sensor.

9. An engine management system as herein before described and/or illustrated in any appropriate combination of the accompanying text and/or figures.